

REMARKS

The final Office Action mailed March 16, 2010 has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

Claim Status and Amendment to the Claims

Claims 47-48 and 50 are now pending.

No claims stand allowed.

Claims 1-44 were previously cancelled, without prejudice or disclaimer of the subject matter contained therein.

Claims 45-46, 49, and 51 have been cancelled, without prejudice or disclaimer of the subject matter contained therein.

The Applicant gratefully acknowledges the indication of allowance of claim 50. The Applicant is further grateful for the indication of allowability of claim 49, subject to its rewriting in independent form including all of the limitations of the base claim and any intervening claims.

Objections to the Specification

The specification stands objected to for allegedly failing to provide proper antecedent basis for the claimed subject matter.¹ This objection is respectfully traversed.

Claim 45

The Examiner states:

Claim 45 recites a "cluster internal communication mechanism." Applicant's claim terminology states that routing information is stored via a cluster internal communication mechanism. Applicant's published specification, paragraphs

¹ Final Office Action mailed March 16, 2010, at ¶ 6.

0035-0040, 0058-0059, 0065-0066, 0070, 0073, and 0087 are the only sections that reference a cluster. However, a review of these paragraphs in light of the specification/drawings do not provide antecedent basis for an internal communication mechanism for the cluster.²

The Applicant respectfully disagrees. The Applicant respectfully submits the specification, figures, and claims as originally filed provide ample support for the recited limitation. For example, paragraph 53 of the specification recites:

[0053] An *alternative routing device 22 is also coupled to the routing device 16*. During the course of operation, any changes to the routing information are propagated to the alternative routing device 22. The alternative routing device 22 may then store and update any routing information associated with the operation of the routing device 16 in conjunction with the traffic to and from the interconnected network 14. In this manner, the alternative routing device 22 maintains updated routing information in the operation of the system with respect to the other network devices associated with the interconnected network 14.³

Furthermore, the Figures of the present application clearly show alternative routing device 22 as being internally coupled to routing device 16. Figure 1 is shown below for the Examiner's convenience. Figure 1 below has been annotated with a circle around the line illustrating the internal connection between alternative routing device 22 and routing device 16:

² Office Action at ¶ 7.

³ Published patent application at ¶ 53. (emphasis added)

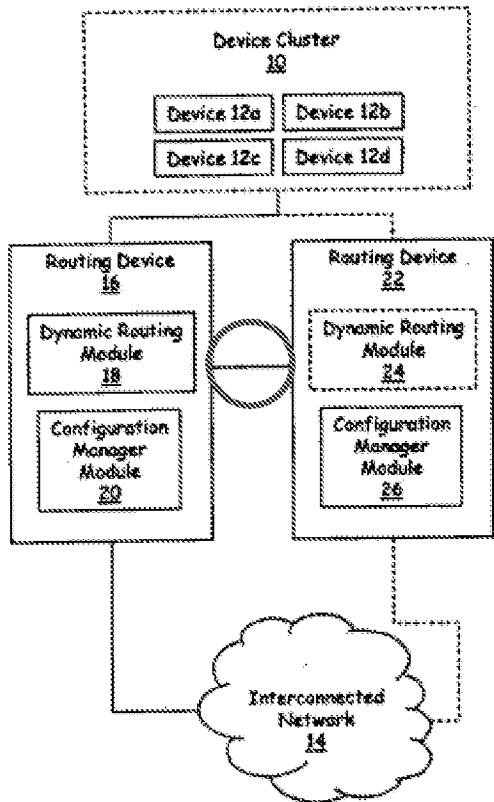


Figure 1

Note that FIG. 1 shows routing device 16 and routing device 22 being coupled multiple ways in FIG. 1. A first connection mechanism is shown connecting routing device 16, device cluster 10, and routing device 22. Interconnected network 14 is a second connection mechanism connecting routing device 16 with routing device 22. The third connection mechanism is represented by the circled line directly between routing device 16 and routing device 22. As no other devices are coupled via this third connection mechanism, it is clearly internal with respect to routing device 16 and routing device 22. This same coupling means is illustrated in each of FIGS. 2-11 as well. For at least the above reasons, the Applicant respectfully submits the specification, figures, and claims provide ample antecedent basis for the limitations of Claim 45.

Claims 45 and 51

The Examiner states:

Claim 45 and 51 recite that a network manager issues a command such that a dynamic routing module of the first routing component stores routing information received from the second routing component via the a cluster internal communication mechanism. As per applicant's published specification, paragraph 0067, a network manager may issue commands halting operation, starting routing operations. As per paragraph 0071, a network manager may effectuate a seamless transition between the dynamic routing module and the alternative dynamic routing module. The network manager can be used to effectuate a 'last second' transition of information that could be used from the dynamic routing module. The specification does not support this particular functionality of triggering a synchronization-like command. Moreover, the specification does not support this functionality in the context of using an internal cluster communication mechanism.⁴

The Applicant respectfully disagrees. Paragraph 71 of the specification recites:

[0071] In terms of the network manager 28, this may be used to allow an even further seamless transition between the dynamic routing module 18 and the alternative dynamic routing module 24. The network manager 28 may be used to effectuate a "last-second" *transition of information* that could be used by the alternative dynamic routing module 24 from the dynamic routing module 18. In this manner, the transition between the dynamic routing module 18 and the alternative dynamic routing module 24 is *as up to date as possible*.⁵

As discussed above, the application as filed clearly discloses routing information is stored via a cluster internal communication mechanism. Furthermore, the Applicant respectfully submits that one skilled in the art would understand synchronization between entities to require transferring information so that the relevant information residing on each of the entities to is current or up to date. Paragraph 71 of the specification clearly discloses transitioning or transferring relevant information from dynamic routing module 18 to dynamic routing module 24. Paragraph 71 of the specification further discloses that the transitioning or transferring is done with the express purpose of ensuring that dynamic routing module 24 is as "up to date" or synchronized as

⁴ Office Action at ¶ 8.

⁵ Specification at ¶ 71. (emphasis added)

possible. For at least the above reasons, the Applicant respectfully submits the specification, figures, and claims provide ample antecedent basis for the limitations of Claims 45 and 51.

The Provisional Double Patenting Rejection

Claim 45 stands provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of Claim 1 of copending and commonly assigned U.S. Application Serial No. 10/966,367 (“‘367 Application”). The Examiner also indicates if Claim 49 of the present application is rewritten in independent form, a potential double-patenting rejection may arise due to the substantial similarity between Claim 47 of the present application and co-pending Claim 26 of the ‘367 application. This provisional rejection is respectfully traversed.

With this Amendment, Claim 45 has been cancelled without prejudice or disclaimer of the subject matter contained therein, thus rendering the provisional rejection of Claim 45 moot.

Regarding the possible double patenting rejection of presently amended Claim 47 of the present application and Claim 26 of the ‘367 application, Claim 26 of the ‘367 application recites:

A routing component located on a first network device in a cluster of network devices, the routing component comprising:
a dynamic routing module;
a configuration manager configured to store configuration information associated with operational characteristics of a second dynamic routing module associated a second routing component located on a second network device in the cluster, the cluster comprising a plurality of network devices configured to operate in parallel and to communicate with neighboring devices outside the cluster using a cluster address;
a network information module, configured to store routing information from the second routing component;
a communication module configured to receive a reply from another routing component, the reply being responsive to the receipt of a graceful/hitless restart by the another routing component;

wherein the dynamic routing module is configured to execute upon an indication that the second dynamic routing module is no longer operating; and wherein the dynamic routing module is further configured to operate according to the configuration information.

Presently amended Claim 47 of the present application recites:

A routing component configured for use in a cluster of network enabled devices having at least a first network enabled device with the routing component and a second network enabled device with a second routing component and a network manager, the network manager external to and communicably coupled to the routing component and to the second routing component, each of the network enabled devices in the cluster configured to communicate with network devices external to the cluster through a single network address, each of the network enabled devices in the cluster configured to operate in parallel and independently of each other, the routing component comprising:

- a configuration manager module configured to store configuration information relayed from a configuration manager module of the second routing component; and
- a dynamic routing module;
- the routing component configured to apply the configuration information through the interaction of the configuration manager module and the configuration manager module of the second routing component to an instantiation of the dynamic routing module operating in the routing component;
- the dynamic routing module configured to execute in response to a command from the network manager, and further configured to execute according to the configuration information stored in the configuration manager module upon an unplanned failure of the second dynamic routing module of the second routing component;
- the routing component further configured to transmit a hitless restart event responsive to the unplanned failure of the second dynamic routing module of the second routing component, the hitless restart event signaling network enabled devices external to the cluster to continue forwarding packets to the cluster; and
- the routing component further comprising a communication module configured to receive a reply from another routing component associated with the receipt of a hitless restart.

As can be seen from the above, presently amended Claim 47 of the present application and Claim 26 of the ‘367 application are not substantially similar. For example, Claim 26 of the ‘367 application recites in part a network information module, whereas this limitation is absent from presently amended Claim 47. As an additional example, Claim 26 of the ‘367 application recites in part “wherein the dynamic routing module is configured to execute upon an indication that the

second dynamic routing module is no longer operating,” whereas this limitation is absent from presently amended Claim 47. For at least the above reasons, the Applicant respectfully submits a double patenting rejection would be improper.

The 35 U.S.C. § 103 Rejection

Claims 45-48 and 51 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dinker et al.⁶ in view of Folkes et al.⁷ further in view of Moy⁸ and further in view of Lin et al.⁹, of which Claims 45, 47, and 51 are independent claims.¹⁰

With this Amendment, Claims 45, 46, and 51 have been cancelled without prejudice or disclaimer of the subject matter contained therein. Also with this Amendment, the limitations of Claim 49 have been included in Claim 47, which the Examiner has indicated would be allowable. Claim 48 depends from presently amended Claim 47. Accordingly withdrawal of the 35 U.S.C. § 103 rejection is respectfully requested.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

⁶ U.S. Patent Publication No. 2004/0098490 to Dinker et al.

⁷ U.S. Patent Publication No. 2003/0218982 to Folkes et al.

⁸ Hitless OSPF Restart, February 2002.

⁹ U.S. Patent Publication No. 2003/0154431 to Lin et al.

¹⁰ Office Action at ¶ 13.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

Allowable Subject Matter

The Examiner is thanked for the kind allowance of Claim 50, and the indication of allowability of Claim 49 if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicant acknowledges the Examiner's statement of reasons for allowance as set forth in the Office Action. However, the Applicant points out that the reasons for allowability of the above referenced claims are not limited to the reasons for allowance as set forth in the Office Action, and that additional reasons for allowability may exist, each of which may be independently sufficient to establish the patentability of one or more pending claims.

The Applicant respectfully reserves the right to introduce, articulate, or otherwise comment on any such additional reasons for allowance as may be appropriate in any future proceedings concerning the claimed invention.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

The Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-3557.

Respectfully submitted,
Page 12 of 13

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Dated: March 23, 2010

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